

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An apparatus for producing alcohol from cereal raw materials, comprising
 - a grinding station (1) comprising a separator and a feeder, wherein said grinding station is configured to grind grain comprising a starch and/or sugar of the cereal raw materials to flour, said separator is configured to separate at least a part of seed coat portions enclosing said grain, and said feeder is configured to feed said separated dry seed coat portions directly from said grinding station to a drying station to function as a carrier medium for vinasse,
 - a liquefaction station (9) which digests flour to a liquefied raw material,
 - a fermentation station (13) which ferments said liquefied raw material to mash,
 - a distillation station (15) comprising a distillation column (91) for separating off alcohol from the mash, and
 - a drying station (21, 31) configured to dry vinasse produced as a residue in said distillation station at a dew point temperature of above 95°C, comprising a drier dryer producing exhaust vapor having a temperature permitting the distillation of said alcohol in said distillation station, wherein said dryer contains said dry seed coat portions as the carrier medium.

2. (Original) The apparatus as claimed in claim 1, characterized in that the grinding station (1) separates off the seed coat portions in a weight ratio of seed coat portions to flour of 1 to 9 to 2 to 8.
3. (Previously Presented) The apparatus as claimed in claim 1, characterized in that the grinding station (1) grinds the cereals to flour with a mean particle size between 0.5 and 1 mm.
4. (Previously Presented) The apparatus as claimed in claim 1, characterized in that the grinding station (1) has a roller mill or an impact jet mill.
5. (Previously Presented) The apparatus as claimed in claim 1, wherein said liquefaction station (9) comprises at least one mixing stage comprising a mixing condenser (53) for admixing steam to a product stream of the ground cereal raw material or a suspension thereof, a steam-jet injector (57) downstream of the mixing condenser (9) for admixing superheated steam to the product stream, and an expansion cooler (63) for the product stream connected downstream of the steam-jet injector (57) and comprises at least one expansion stage (67, 73), said mixing condenser (53) admixing expansion vapor of said expansion cooler (63) to said product stream.
6. (Previously Presented) The apparatus as claimed in claim 5, wherein said

expansion cooler (63) is of multistage construction.

7. (Original) The apparatus as claimed in claim 6, characterized in that the mixing condenser (53) is of single-stage construction, and the expansion cooler (63) is of two-stage construction.
8. (Previously Presented) The apparatus as claimed in claim 5, characterized in that the mixing condenser (53) heats the product stream to a temperature below the gelatinization temperature of the raw material, and the steam-jet injector (57) heats the product stream to a temperature above the gelatinization temperature of the raw material.
9. (Previously Presented) The apparatus as claimed in claim 1, characterized in that, between the fermentation station (13) and the distillation station (15), there is disposed a degassing station (17) in which the mash product stream passes through from top to bottom a vertically standing tube bundle (81) which is evacuated at its bottom end, and the mash product stream expands in the tube bundle (81).
10. (Original) The apparatus as claimed in claim 9, characterized in that the mash product stream, before entry into the tube bundle (81), passes through a heat exchanger (79) preheating the mash.

11. (Canceled).
12. (Currently Amended) The apparatus as claimed in claim 1, wherein said ~~drier~~ dryer (21) produces essentially air-free exhaust vapor.
13. (Currently Amended) The apparatus as claimed in claim 1, wherein said ~~drier~~ dryer (21) is constructed as a superheated steam ~~drier~~ dryer.
14. (Previously Presented) The apparatus as claimed in claim 1, characterized in that the distillation station (15) has a first distillation column (91) which is heated, in particular, by exhaust vapor of the drying station (21, 31), to which is connected a dehydration station (45) which dehydrates its crude alcohol product stream
and in that a second distillation column (117) is connected at an intermediate level of the first distillation column (91) above its mash feed level (93), which second distillation column is heated via a heat exchanger (127) by heat of the dehydrated alcohol vapor of the dehydration station (45).
15. (Original) The apparatus as claimed in claim 14, characterized in that the heat exchanger is constructed as a falling-film evaporator (127) heated by dehydrated alcohol vapor of the dehydration station (45).

16. (Previously Presented) The apparatus as claimed in claim 14, characterized in that the dehydration station (45) comprises a molecular sieve (117).
17. (Original) The apparatus as claimed in claim 16, characterized in that the molecular sieve (117) is operated at a pressure of 1.7 bar absolute or more.
18. (Currently Amended) The apparatus as claimed in claim 1, characterized in that the drying station (21, 31) comprises a separator (25) which separates the vinasse into a vinasse-thin juice product stream and a vinasse-solids product stream, an evaporator (31) which evaporates the vinasse-thin juice product stream to form vinasse-thick juice, and also a ~~drier~~ dryer (21) which dries the vinasse-thick juice together with the vinasse-solids to give dry vinasse, in that the distillation station (15) is connected downstream of the dehydration station (45) which dehydrates the crude alcohol product stream and in that the evaporator (31) has at least one evaporator stage (51) heated by heat of the dehydrated alcohol vapor of the dehydration station.
19. (Original) The apparatus as claimed in claim 18, characterized in that the evaporator (31) comprises a pre-evaporator (49) and a final evaporator (51) and in that the final evaporator (51) is heated by dehydrated alcohol vapor from the dehydration station (45).

20. (Previously Presented) The apparatus as claimed in claim 18, characterized in that the dehydration station (45) comprises a molecular sieve (117).
21. (Original) The apparatus as claimed in claim 20, characterized in that the molecular sieve (117) is operated at a pressure of 1.7 bar absolute or more.
22. (Currently Amended) An apparatus for producing alcohol from a cereal grain raw material, comprising
- grinding means for grinding said cereal grain raw material into a flour and separating at least a part of a seed coat portion enclosing said cereal grain raw material,
 - liquefying means for digesting said flour into a liquefied raw material,
 - fermenting means for fermenting said liquefied raw material to form a mash,
 - distillation means comprising a distillation column for separating alcohol from said mash at a dew point temperature of above 95°C,
 - drying means comprising a drier dryer for drying a vinasse formed as a residue in said distillation means and for producing an exhaust vapor for heating said distillation column, and
 - feeding means for feeding dry seed coat portions to said drying means as a carrier medium for said vinasse.
23. (Previously Presented) The apparatus of claim 1, wherein said final drying of

the vinasse is carried out at a dew point temperature of from 100°C to 105°C.

24. (Previously Presented) The apparatus of claim 1, further comprising a conduit for exhaust vapor connecting said drying station to said distillation station.
25. (Currently Amended) The apparatus of claim 1, wherein the distillation column is supplied exclusively with process heat from the exhaust vapor of the ~~drier~~ dryer.
26. (Currently Amended) A process for producing alcohol from cereal raw materials, comprising the steps of
- grinding grain comprising a starch and/or sugar of the cereal raw materials to flour;
 - separating at least a part of seed coat portions enclosing said grain;
 - feeding said separated dry seed coat portions directly from a grinding station wherein said grinding step is performed to a drying station;
 - liquefying said flour with addition of enzymes;
 - digesting said liquefied flour into a fermentable liquefied raw material;
 - fermenting said liquefied raw material to form a mash and alcohol;
 - providing a distillation station for separating said alcohol from said mash;
 - distilling said alcohol in said distillation station comprising a distillation column;
 - forming vinasse as a residue in said distillation station;

- feeding said vinasse into said drying station containing said dry seed coat portions, wherein said seed coat portions serve as carrier material for said vinasse;
- drying said vinasse at a dew point temperature of above 95°C producing exhaust vapor having a temperature permitting the distillation of alcohol in said distillation station; and
- heating said distillation station with said exhaust vapor, wherein the temperature of said exhaust vapor exclusively permits distillation in said distillation column.

27. (Previously Presented) The process of claim 26, wherein said seed coat portions are in a weight ratio of between 1:9 and 2:8 to said flour.
28. (Previously Presented) The process of claim 26, wherein said cereals are ground to flour with a mean particle size between 0.5 and 1 mm.
29. (Previously Presented) The process of claim 26, wherein said grinding is performed by a roller mill or an impact jet mill.
30. (Previously Presented) The process of claim 26, further comprising at least one mixing stage.
31. (Previously Presented) The process of claim 26, further comprising admixing

superheated steam to said vinasse.

32. (Previously Presented) The process of claim 26, wherein the mash is degassed prior to distillation.
33. (Previously Presented) The process of claim 26, further comprising heating said mash in a heat exchanger.
34. (Previously Presented) The process of claim 26, wherein said exhaust vapor is essentially air-free.
35. (Currently Amended) The process of claim 26, wherein said drying is performed in a superheated steam ~~drier~~ dryer.
36. (Previously Presented) The process of claim 26, further comprising dehydrating said alcohol in a dehydration station.
37. (Previously Presented) The process of claim 26, wherein the distillation station comprises a first distillation column heated by exhaust vapor produced in said drying station, and a second distillation column connected at an intermediate level of the first distillation column, wherein said second distillation column is heated via a heat exchanger by heat of dehydrated alcohol vapor.

38. (Previously Presented) The process of claim 37, wherein the heat exchanger is a falling-film evaporator heated by dehydrated alcohol vapor.
39. (Previously Presented) The process of claim 26, further comprising the step of separating the vinasse into a vinasse-thin juice product stream and a vinasse-solids product stream.
40. (Previously Presented) The process of claim 39, further comprising evaporating said vinasse-thin juice product stream is to form a vinasse-thick juice.